RCI
ENVIRONMENTAL INC.
Environmental Contractors & Engineers

REMEDIAL ACTION PLAN
NORTH BOEING FIELD FIRE TRAINING PIT
SOIL REMEDIATION

prepared for,

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I. ACTIVITY SCHEDULE AND SEQUENCE

Upon notice to proceed with construction, RCIE will mobilize the required equipment to the staging area next to the existing underground storage tank (UST) #BF-26. All security fencing, barricades, or barriers will be placed around the Exclusion Zone (EZ) as required. No surveying will be required for this project. These preparatory items will be accomplished in approximately 3 days.

Following completion of the preparatory items listed above, RCIE will begin excavation with a K-907 track-mounted backhoe (or equivalent) at the north end of the Fire Pit. Boeing Environmental will provide on site contaminant screening to determine disposition of excavated soils. Soil designated for disposal will be loaded directly into trucks/trailers for transport to the Regional Disposal Company's (Rabanco) receiving facility at 3rd and Lander in Seattle. Following excavation to the specified limits, Boeing will collect samples to determine if cleanup objectives have been met. Results will be obtained in 24 hours. All liquids generated during excavation will be pumped into a 21,000 gallon temporary storage tank for subsequent sampling/disposal by Boeing.

As excavation is accomplished in each section, Boeing will provide verification that cleanup goals have been attained. Following satisfactory cleanup of the designated excavation area, RCIE will backfill with import material sufficient to attain specified grade requirements. Excavation activities will be completed in approximately 10 days, including tank removal and ditch excavation. Attachment 1 is a project timeline showing an anticipated schedule of completion for each task on this project.

II. SITE SECURITY AND GENERAL SAFETY

The RCIE Superintendent (Ben Reynolds) will control all access to the site. All site workers will sign a daily safety meeting which will provide record of their presence at the project site. A daily site log will be maintained where all other visitors to the site will sign in and out. Each worker will be briefed on the importance of security at this site, and will be charged with the responsibility of immediately notifying their Foreman or the Superintendent of security violations.

A combination of barriers, hazard tape, and security fencing will be used to delineate the Exclusion Zone and areas of limited access. All excavation and containment areas will be considered Exclusionary. Only workers trained in accordance with 29 CFR 1910.120, Hazardous Waste Site Operations, ("trained") will be allowed in these areas. The Support Zone will be established at the northeast end of the excavation area near the existing UST. This area will be the break/lunch area, the safe refuge area, and the command post for all operations. There will be at least one portable phone on site at all times. At the outermost edge of the Exclusion Zone near the Support Zone, a Contaminant Reduction Zone will be established. All affected PPE, equipment, and tools will be cleaned in this Zone prior to exiting. Non-reusable PPE will be discarded into drums/liners, and reusable PPE, tools, and equipment will be washed, rinsed, and staged in the Support Zone.

Lane closures of existing public roadways is not anticipated. Construction warning signs will be placed in the immediate vicinity of each entry/exit location. Flaggers are not anticipated to be required. All trucks used for importing backfill material and for transporting waste off site will be required to obey all local traffic laws. Access to the site for trucks will be through an electronic gate at the Prat and Whitney field office located adjacent to the steam plant on Ellis Street.

III. EXCAVATION, HANDLING, AND TRANSPORT OF CONTAMINATED SOIL

All soil within the limits of the excavation zone designated for disposal will be placed in trucks/trailers for transport to Rabanco's 3rd and Lander receiving facility. Trucks used for transporting waste will be required to use tailgate locks and tarps during all public roadway travel.Final disposal of the material will be at the Roosevelt Regional Landfill.

The excavation process will be conducted starting in the northeast corner of the Fire Pit and will proceed in a southerly direction. The horizontal and vertical extents of excavation will be determined by the Boeing field representative on site. Once the limits of the excavation have been reached, Boeing will collect confirmatory samples to determine if cleanup objectives have been attained. Once confirmation has been received, RCIE will begin backfill operations.

IV. CONTROL OF WATER

As excavation activity progresses, RCIE will maintain a system of dewatering to facilitate efficient digging/sampling and to provide Boeing with a clear view of the pits to make cleanup determinations. As pits are created, trash pumps or submersible pumps will be used to remove accumulated water so that sampling and inspections can be accomplished by Boeing. These dewatering systems will be constantly maintained during the excavation process. Surface water runoff will be controlled to prevent entry or collection of water in excavations or in the stockpile areas. The pumping systems will be adequate to draw the water level down to the bottom of the excavation making the base readily visible. This will allow the consultant to determine the required depth of excavation at any given point. This will also maintain the undisturbed state of foundation soils and allow the placement of any fill or backfill to the required density.

All water pumped during excavation dewatering will be pumped to a 21,000 gallon temporary storage tank. Boeing will sample and characterize the collected water to make proper disposal determinations.

V. BACKFILL

Backfill of the Fire Pit excavation area will accomplished during excavation operations. As sections of the excavation zone are confirmed clean, imported material of the size and specification required will be transported and placed in the designated clean areas. All imported fill material will be placed in approximately 2 foot lifts. Compaction will be accomplished on each lift to the minimum specified density of 90% (ASTM D-1557). Compaction will be accomplished using a hoe pack or sheeps foot roller. Water will be added as necessary to achieve compaction specifications. Compaction testing will be performed at the request of Boeing only. The total area of backfill will be compacted concurrently and continuously as backfill is being placed. In areas of limited access for larger compaction equipment, hand-operated tampers will be used.

RCIE will facilitate compaction testing performed by Boeing as required. Soil samples will be provided upon request. All compaction will be performed to meet field test requirements in accordance with ASTM Designation D1556, D2167, or D2922.

VI. UNDERGROUND STORAGE TANK AND STRUCTURE REMOVAL/DITCH EXCAVATION

Following excavation of the main Fire Pit excavation zone, RCIE will begin removal operations at the existing 3,000 gallon fuel tank. The concrete slab will be demolished and stockpiled for subsequent removal. Cleaning of the UST will be performed by Boeing representatives in accordance with the specifications. Therefore, following removal of the concrete slab, the UST will be excavated and removed. It will be secured above-ground in a pre-determined staging area to be cleaned and disposed by Boeing. Following tank removal, RCIE's registered Site Assessor (Greg Annala) will collect soil samples from the excavation zone in accordance with the Washington State Department of Ecology's Guidelines for Site Checks and Site Assessments for Underground Storage Tanks. Samples will be collected from below the tank and from two side walls. The samples will be analyzed for total petroleum hydrocarbons using the Washington TPH-D method. Upon receipt of analytical data, RCIE will forward information to Boeing for preparation of a UST Decommissioning and Site Assessment report setting forth the findings of the UST closure operation.

In the event that closure sampling reveals contamination above MTCA cleanup levels, RCIE will consult with Boeing regarding further cleanup action. If closure sampling shows acceptable levels of soil contamination, the UST excavation zone will be backfilled in the same manner as described above in Section V.

Once the UST has been removed, RCIE will excavate and remove 2 existing catch basins. Associated piping will be plugged at the edge of the existing roadway. Excavation of the existing ditch will again be to the limits determined by the Boeing representative. All material determined to be contaminated will be removed and transported to the Rabanco facility in the same manner as described above for the Fire Pit soils. Backfill operations at this location will also be in accordance with the above-described methods (Section V).

VII. CLEANUP, DECONTAMINATION AND ENVIRONMENTAL PROTECTION

Once backfill has been completed and compaction requirements have been met, RCIE will place 4 inches of topsoil over all disturbed areas. Hydroseeding will be accomplished in accordance with contract specifications. All affected tools and equipment will undergo a final decontamination process following completion of all work within contaminated environments. A pressure washer will be used to accomplish this final decontamination operation. No equipment or tools will be permitted to leave the project site until Boeing has approved the decontamination process.

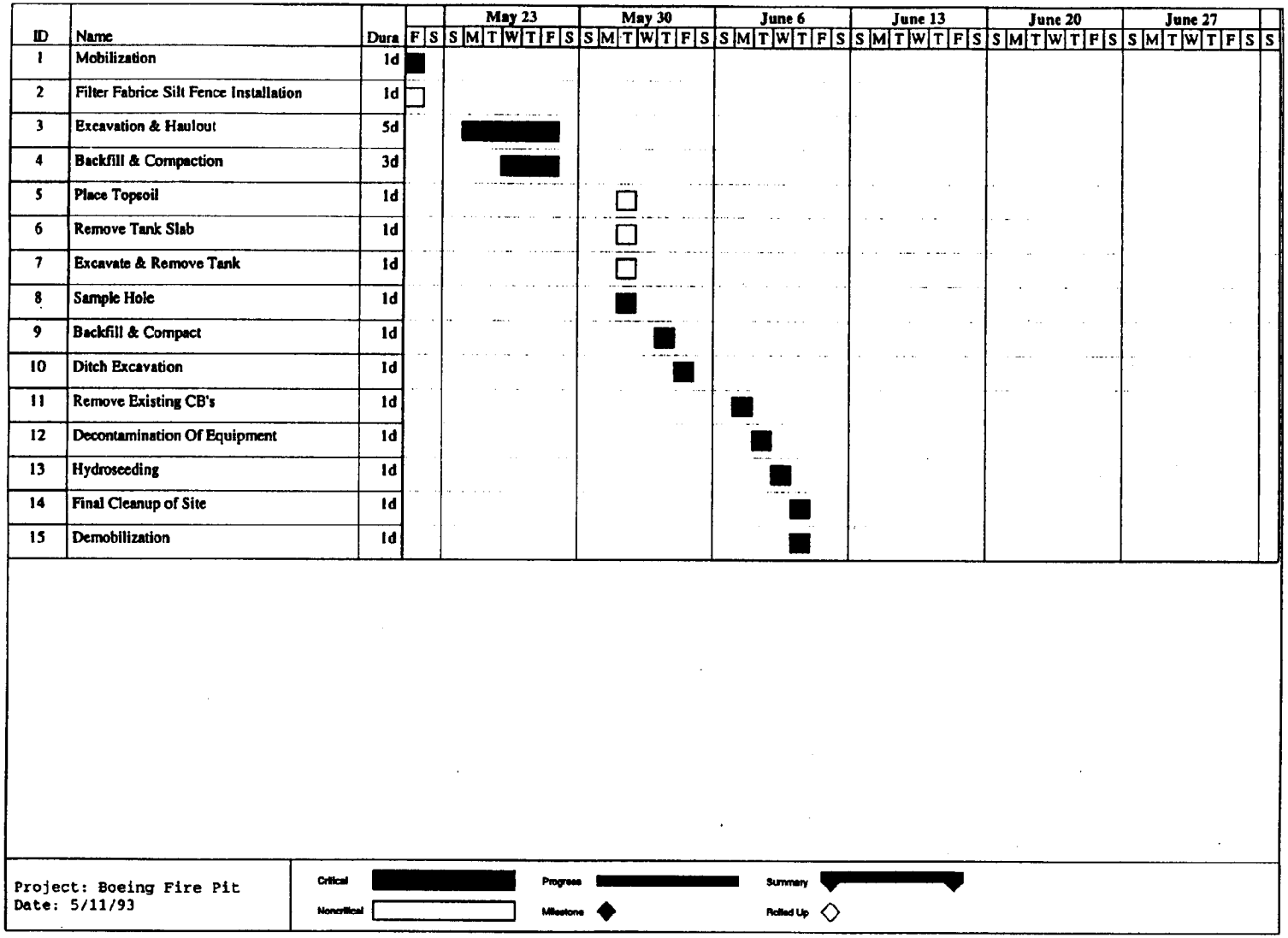
Environmental protection concerns on RCIE projects are as important as worker safety. These concerns are of paramount importance on waste remediation projects. RCIE's project team will be equipped with tools and/or contingency plans for the potential of off-site impacts, and our air monitoring results will be used to define the measures to be taken if action levels are exceeded during monitoring. Also standard at RCIE project sites is a dust control program utilizing dust pallatives such as magnesium chloride or simply applying water to high dust potential areas prior to and during construction activities. The dust control program includes the removal of dust, dirt, and mud from project-affected areas such as parking lots, municipal roadways, and county and state highways.

Other preventive measures will be taken by our remedial action crews when handling contaminated materials. Each crew truck and fuel truck is equipped with emergency contingency and spill response gear. Crews will be required to have visqueen on site for spill containment, and may use visqueen and berms to prevent the potential release of hazardous materials to the environment. Should a spill occur, the team will be ready to respond immediately with spill cleanup equipment and supplies to prevent the migration of materials to surface waterways, storm drains, drainage ditches, sumps, etc. Methods of containment include bermed visqueen, earth berms, absorbent pads, diatamaceous earth, and man-made containment sumps.

During transport of contaminated materials, an important

environmental protective measure involves the securing of loads. RCIE has employed a variety of techniques to insure that loads of contaminated soil do not leak into the environment. If the materials are excessively wet, two methods commonly used are visqueen "diapering" of truck beds, or the use of black mastic around openings in the truck tailgate. Loads of contaminated soil will be covered with tarps, and tailgates will be secured with locks prior to transport.

Some general preventive measures are also employed by RCIE on all project sites. Equipment undergoes daily inspections to determine that all operating systems are functioning properly and that there are no hydraulic oil, lubricating oil, or fuel leaks. In the event that leakage has occurred, field crews are required to take immediate action to mitigate the release and to prevent further leakage or migration of contaminants. During routine maintenance, equipment is placed either on visqueen, or in areas carrying low potential for environmental impact (asphalt or concrete paved areas). If releases occur during maintenance, the same response procedures as above-described are mandated.



VIII. PROJECT MANAGEMENT AND TRAINING

RCIE's overall corporate organizational structure with regards to safety, accident prevention, and overall project management is defined in the Accident Prevention Program found in the Site Specific Health and Safety Plan. For the North Boeing Field Fire Training Pit Soil Remediation Project, the following project management structure will be used (all RCIE's personnel office phone number is (206) 852-4690, and our 24-hour emergency response number is (206) 859-6995):

Brian Anderson
Boeing Engineer

J.C. Brummond
Senior Project Manager
Vice President, RCIE
Mobile # 949-1617

Ted Noble
Project Manager (Company Contact)
Mobile # 947-5906

Ben Reynolds
Superintendent/Site Safety Officer
Mobile # 279-7379

Foremen and Subcontractors